



Perkembangan Teori Kota Kontemporer

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Ilya Maharika | Urban and Housing Studies | Architecture

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"The building of cities is one of man's greatest achievements"
Edmund Bacon
(Design of Cities)

new urbanism

<http://www.newurbanism.org/>

1. Walkability

- Most things within a 10-minute walk of home and work
- Pedestrian friendly street design (buildings close to street; porches, windows & doors; tree-lined streets; on street parking; hidden parking lots; garages in rear lane; narrow, slow speed streets)
- Pedestrian streets free of cars in special cases

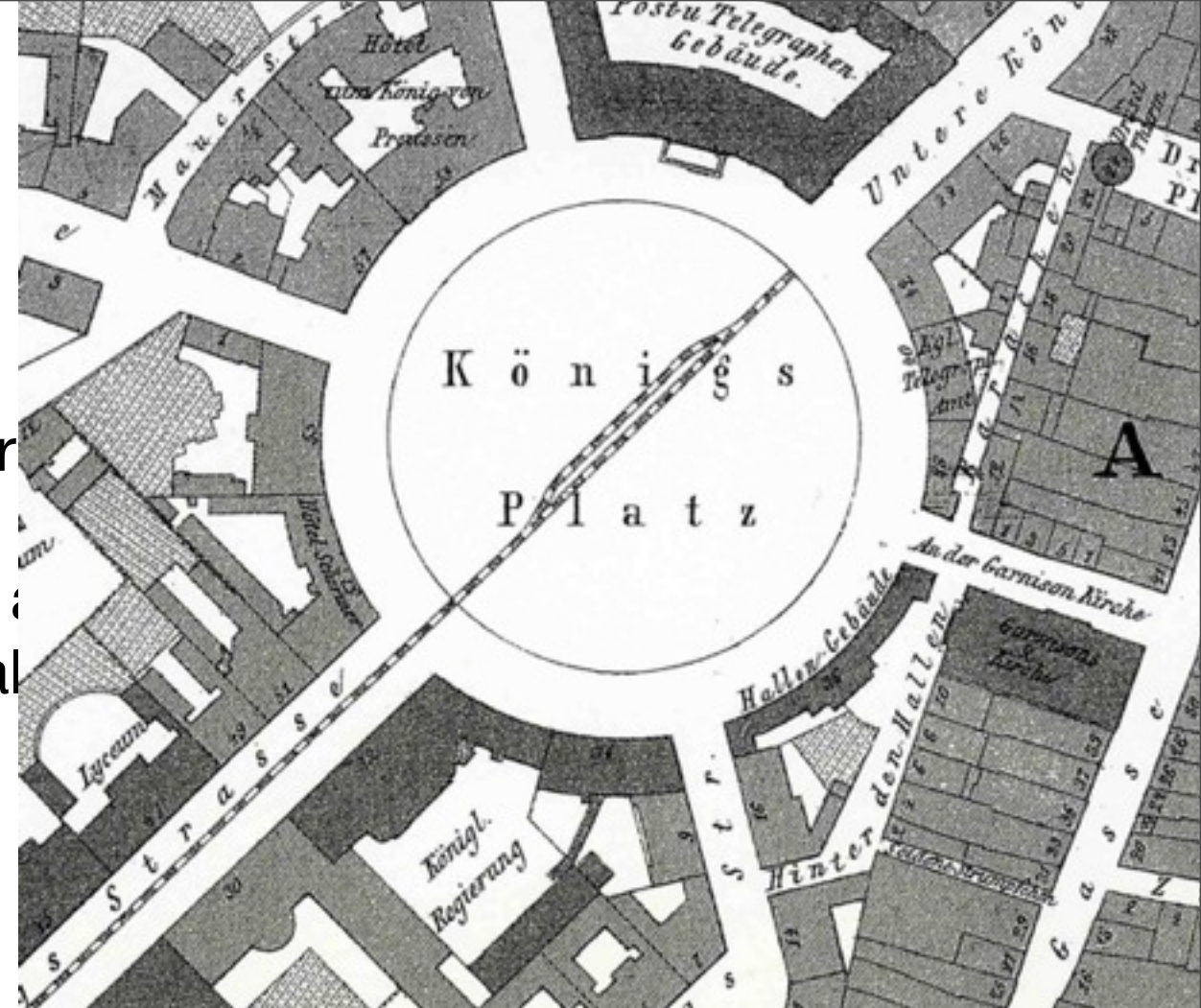


new urbanism

2. Connectivity

- Interconnected street grid network disperses traffic, increases walking
- A hierarchy of narrow streets, boulevards, and arterials
- High quality pedestrian network and public realm makes walking pleasurable

<http://www.newurbanism.org/>



new urbanism

3. Mixed-Use & Diversity

- A mix of shops, offices, apartments, and homes on site. Mixed-use within neighborhoods, within blocks, and within buildings
- Diversity of people - of ages, income levels, cultures, and races

4. Mixed Housing

- A range of types, sizes and prices in closer proximity



new urbanism

5. Quality Architecture & Urban Design

- Emphasis on beauty, aesthetics, human comfort, and creating a sense of place; Special placement of civic uses and sites within community. Human scale architecture & beautiful surroundings nourish the human spirit



new urbanism

6. Traditional Neighborhood Structure

- Discernable center and edge; Public space at center
- Importance of quality public realm; public open space designed as civic art
- Contains a range of uses and densities within 10-minute walk
- Transect planning: Highest densities at town center; progressively less dense towards the edge. The transect is an analytical system that conceptualizes mutually reinforcing elements, creating a series of specific natural habitats and/or urban lifestyle settings. The Transect integrates environmental methodology for habitat assessment with zoning methodology for community design. The professional boundary between the natural and man-made disappears, enabling environmentalists to assess the design of the human habitat and the urbanists to support the viability of nature. This urban-to-rural transect hierarchy has appropriate building and street types for each area along the continuum.



new urbanism

7. Increased Density

- More buildings, residences, shops, and services closer together for ease of walking, to enable a more efficient use of services and resources, and to create a more convenient, enjoyable place to live.
- New Urbanism design principles are applied at the full range of densities from small towns, to large cities



new urbanism

8. Smart Transportation

- A network of high-quality trains connecting cities, towns, and neighborhoods together
- Pedestrian-friendly design that encourages a greater use of bicycles, rollerblades, scooters, and walking as daily transportation



new urbanism

9. Sustainability

- -Minimal environmental impact of development and its operations
- -Eco-friendly technologies, respect for ecology and value of natural systems
- -Energy efficiency
- -Less use of finite fuels
- -More local production
- -More walking, less driving

10. Quality of Life

- Taken together these add up to a high quality of life well worth living, and create places that enrich, uplift, and inspire the human spirit.



urban agriculture

Community Catalyst

By Garon Sebastien and
Chris Foyd – Vancouver

Community gardens have
proven hugely successful in
fostering neighbourhood
exchanges and building a
sense of community.



Harvest Green Project By Romses Architects – Vancouver



Gardens hierarchy:

1. Neighbourhood in laneway
2. Community on rooftop of community centre
3. Communal greenhouses
4. Private in residential unit's enclosed balconies.



By Garon Sebastien and Chris Foyd

What makes up the Urban Agriculture Industry?



Source: Landscape Urban Agriculture - Hamlin [<http://ebookbrowse.com/landscape-urban-agriculture-issues-hamlin-ppt-d177473618>]

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Cause And Effect


Increases in the intensity of land use and urbanization typically result in an increase in impervious surfaces which lowers water quality and affects water quantity.



Source: Landscape Urban Agriculture - Hamlin [<http://ebookbrowse.com/landscape-urban-agriculture-issues-hamlin-ppt-d177473618>]

Water Resource Limitations

**WATER QUANTITY
and
WATER QUALITY**

 **Which do you think is the most urgent and / or important today?**

 **How will these issues affect your business...**

Source: Landscape Urban Agriculture - Hamlin [<http://ebookbrowse.com/landscape-urban-agriculture-issues-hamlin-ppt-d177473618>]



Source: Landscape Urban Agriculture - Hamlin [<http://ebookbrowse.com/landscape-urban-agriculture-issues-hamlin-ppt-d177473618>]

urban acupuncture

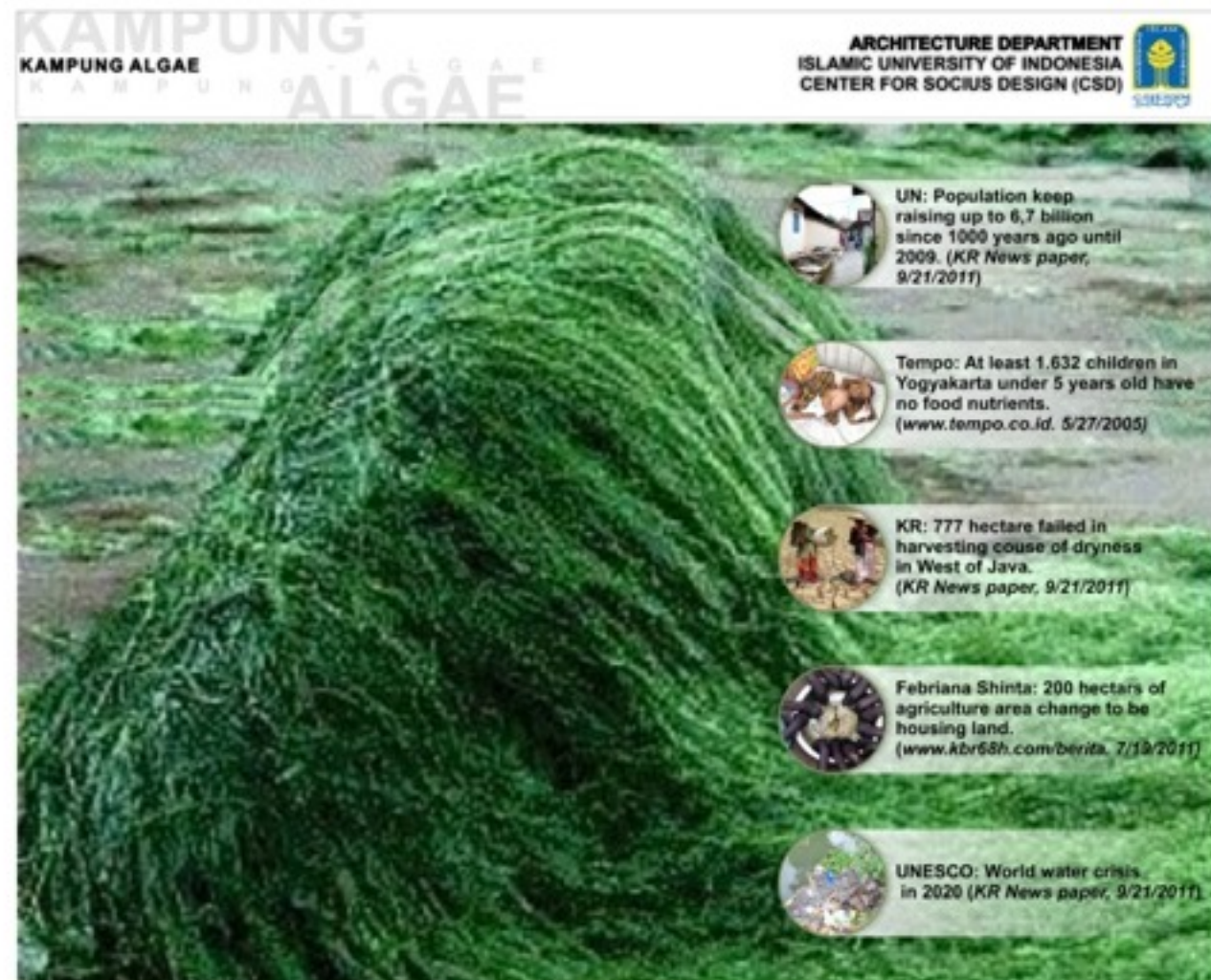
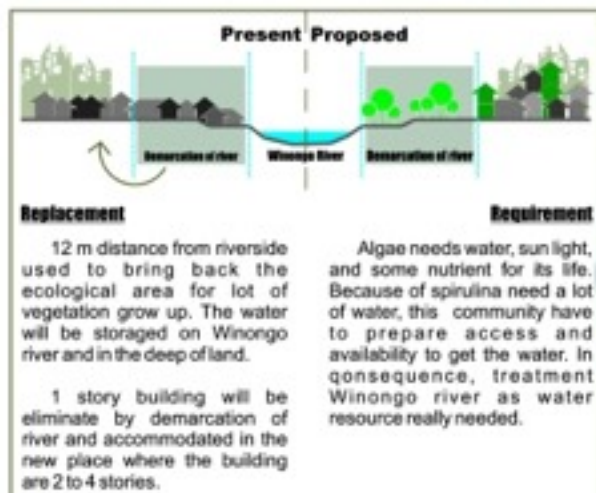
Marco Casagrande

Urban Acupuncture is an urban environmentalism theory of Finnish architect, Professor Marco Casagrande which combines urban design with traditional Chinese medical theory of acupuncture. Casagrande views cities as complex energy organisms in which different overlapping layers of energy flows are determining the actions of the citizens as well as the development of the city. By mixing environmentalism and urban design Casagrande is developing methods of punctual manipulation of the urban energy flows in order to create an ecologically sustainable urban development towards the so-called 3rd Generation City (post industrial city). Casagrande has developed the theory in the Tamkang University of Taiwan.





Existing condition Kricak Village is an area dense residential houses will always grow and new buildings, both permanent and non permanent. The position also took home the riverside so that river border areas prone to flooding if the river overflowed. Coupled with the threat of cold lava flow from Mount Merapi. The rivers become very central Winongo because most people rely water needs of the river that flows throughout the year.



Transformation concept



Algae are nature's first life form and can create a future of abundance through affordable and locally produced food and energy. Thirty times more productive than conventional crops, algae can use cheap and abundant resources that will not run out. Algae will provide sustainable food and ecological living.



Almost the same with the idea of urban farming and smallholders, but commodities used is algae, especially Spirulina Sp. Planting in Algae House with consolidation model homes on the outskirts of River Winongo in lieu of the previous homes. The consolidation process are carried out voluntarily by groups of residents who have agreed to eventually live and work as farmers algae.

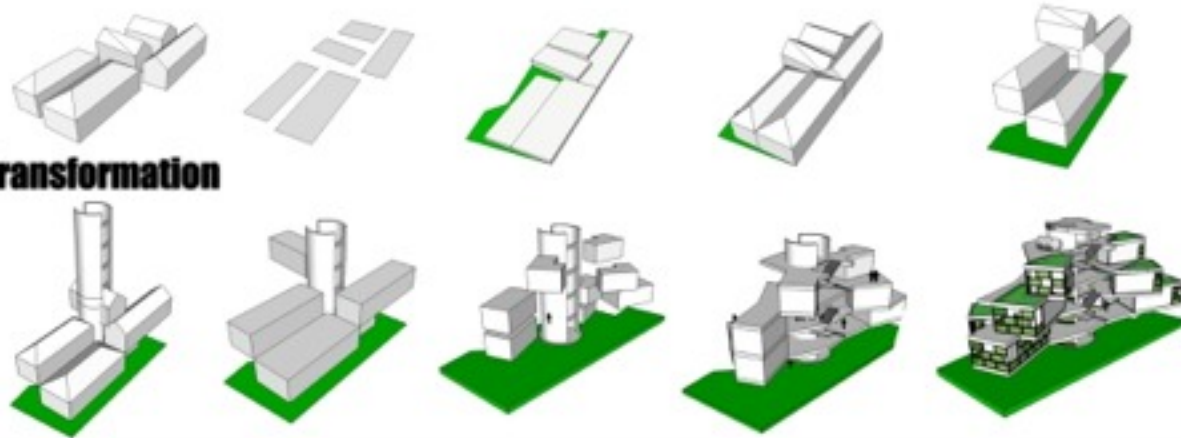
Selection of the river to the village growth area, in addition to developing algae itself is also developing community towards self-sufficient economy village. Environment sector is also expected more attention, especially the quality of river water is used as a medium of the spirulina cultivation.

Farming villages algae are one form of rejuvenation of the first cities in Indonesia. Home residents who cover the landed house green open land and river border, the algae are combined into one house with core system so as to open new land. Algae house pingiran scattered along the river and are connected by bridges to form a community of farmers.





Transformation

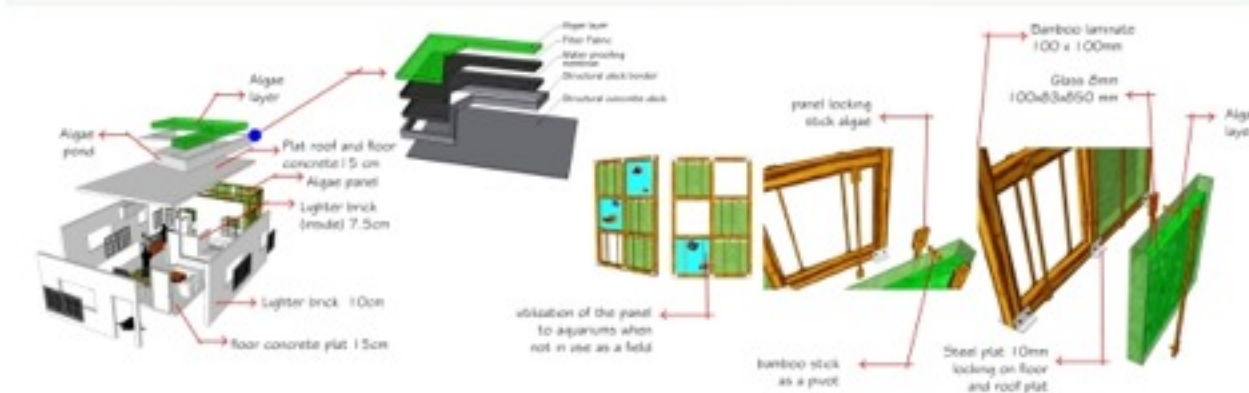
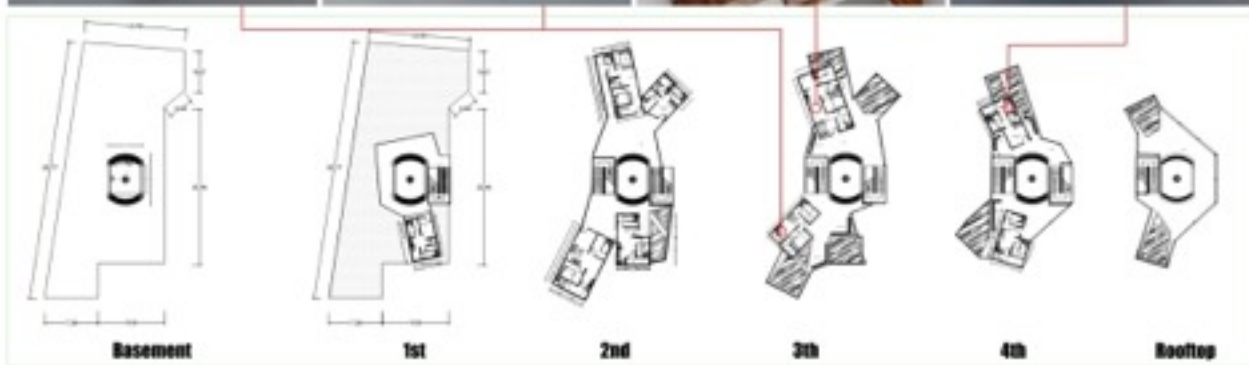


FUNCTION Structure <ul style="list-style-type: none"> Using core system and rigid frame beam as main structure Second structure using singel and V steel column 	FUNCTION Housing <ul style="list-style-type: none"> Size of the new house can be adjust by size the old one 	FUNCTION Planting plan <ul style="list-style-type: none"> including tube, ponds, and algae's panel which seting on the wall and dag roof as panel guard from UV sun light 	
MATERIAL <ul style="list-style-type: none"> The Core made from steel composite, and rigid frame made from concrete composite sitecast concrete beams posttensioned girder Choosing concrete rigt frame because of poeple familiar with it 	MATERIAL <ul style="list-style-type: none"> Materials of wall made of batako or something light of weight such as bata ringan or bamboo 	MATERIAL <ul style="list-style-type: none"> Algae's panel made from bamboo, steel and aquarium glass 	
SUBJECT Investor <ul style="list-style-type: none"> Main structure paid by investor 	SUBJECT Government and society <ul style="list-style-type: none"> Structure of housing sponsored by government 	SUBJECT Planting media <ul style="list-style-type: none"> Algae farm kit made by this Winongo's poeple 	
EXISTENCE Permanent	EXISTENCE Semi permanent	EXISTENCE Removable	

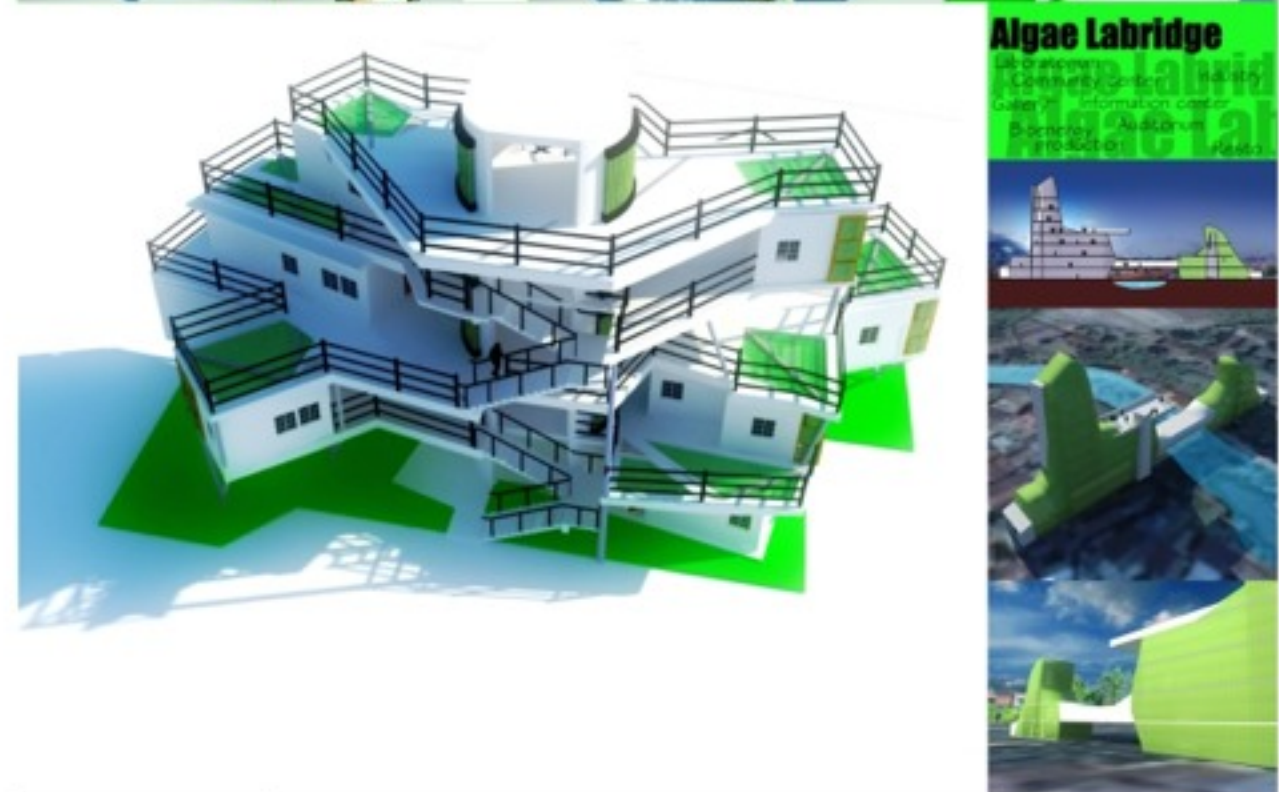


Master plan





Lot of people's activities in Winongo river give life pulse for their own lives in many sector. Its better when we can make this river and water flow contained can usefull with treat it back better like before when the water can drink directly, used to take a bath, or just play and recreation on side path from the river. Bring back some space to breath and get lot of fresh air will be a great thing for our lives.



Algae Labridge
Laboratory Center for Algae
Information Center
Bioscience Algae
Production

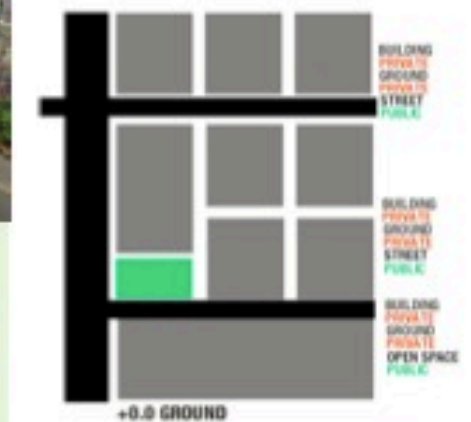
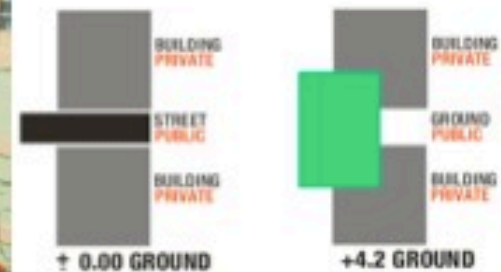
Kepadatan Tinggi Berbasis Kampung

Prinsip WakafRuangPublik ini adalah mengatur agar tercipta "lahan baru" di ketinggian tertentu, misalnya +4,20 meter dari muka tanah. WakafRuangPublik dihubungkan dengan "jalan layang."

Ruang ini akan menjadi sebuah ruang publik penghubung antara bangunan satu dengan yang lain yang merupakan domain privat. Untuk menghadirkan ruang publik di level +n meter dapat dilakukan dengan membuat kesepakatan antar warga dan berdasarkan guideline yang diciptakan oleh negara. RuangPublik di level +n meter tersebut lantas dapat menjadi inisitor bagi munculnya ruang sosial baru yang dinamis karena menjadi penghubung domain privat baru. Negosiasi dan variasi diharapkan akan muncul menjadikan sebuah "multi layer kampung."

WakafRuangPublik©

09-IFM-01



Prinsip Pengaturan WakafRuangPublik Horizontal

Ruang Publik +n meter

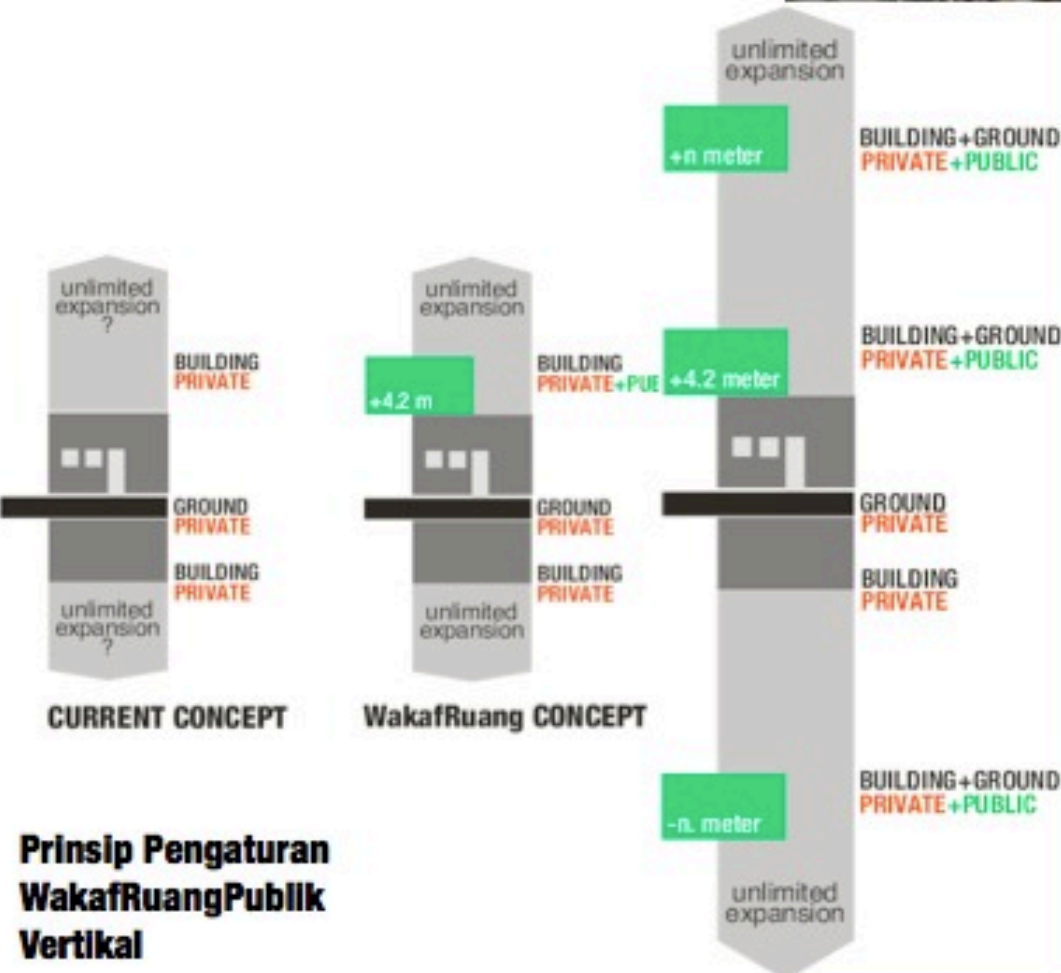
Ruang publik sering dimaknai sekedar menyediakan ruang terbuka yang dapat diakses oleh siapa saja. Makna ini sangat sempit dan cenderung inert.

WakafRuangPublik© adalah sebuah usaha memaknai ruang publik sebagai sebuah mekanisme penciptaan ruang sosial baru dalam konteks kehidupan berkepadatan tinggi yang berbasis perikehidupan kampung.

Ruang sosial dalam kepadatan tinggi menjadi kunci untuk melihat kampung dalam kerangka durasional - sebuah proyeksi masa depan. Salah satu esensi kampung yang perlu dilestarikan adalah koherensi ruang sosialnya - yang mungkin akan sirna dengan proses menuju kehidupan vertikal (entah karena coercion berupa rusunisasi ataupun pertumbuhan inkremental oleh masyarakat sendiri).

Proses kampung yang menjadi vertikal harus diinisiasi dan sekaligus dijaga nilainya agar ia mampu berevolusi menjadi lingkungan permukiman yang sehat. WakafRuangPublik bukan merupakan sebuah rancangan "jadi" pada sebuah lokasi, namun merupakan satu konsep regulasi yang mungkin diterapkan untuk "menyiapkan" ruang publik di konteks kampung yang akan bermutasi dan berevolusi menjadi *urban fabric* berkepadatan tinggi baik bangun-bangunannya maupun penghuninya secara vertikal.

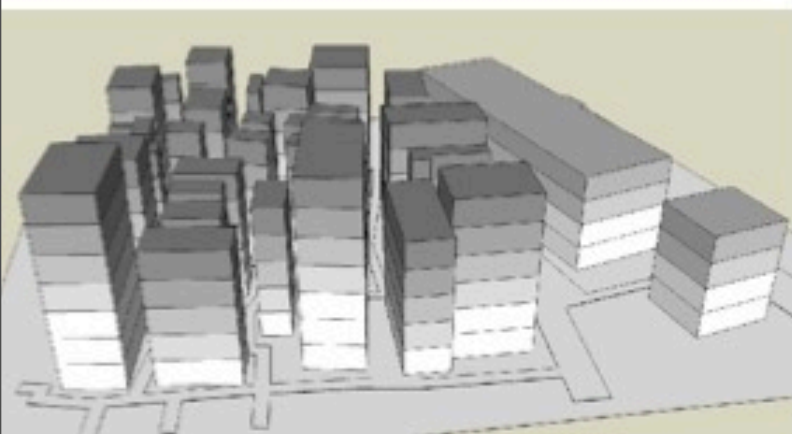
Dinamakan WakafRuangPublik karena seperti esensi wakaf tanah, maka ruang privat di atas (dan dibawah bangunan kita) bukanlah absolut: ada hak orang lain yang perlu kita penuhi.



Prinsip Pengaturan WakafRuangPublik Vertikal



**KAMPUNG SEKARANG
dan evolusi tanpa
diatur**



**MENGEVOLUSIKAN
KAMPUNG dengan
WakafRuangpublik**



WakafRuangPublik©

09-IFM-02



Evolusi kampung tanpa aturan akan mengakibatkan kampung sekedar hunian belaka yang sangat rentan dari sisi sosial maupun lingkungan.

WakafRuangPublik adalah sebuah agen evolusi kampung menuju kehidupan berkepadatan tinggi yang sehat. Jalur-jalur koneksi akan dipakai sebagai koneksi sanitasi, air bersih, energi, gas (ingat program "Kota Gas" Pemerintah RI!).

Lebensraum Baru: Koneksi-koneksi baru

WakafRuangPublik dapat menginisiasi perkembangan ruang +n meter menjadi berbagai kemungkinan peran baik sosial maupun lingkungan. Ruang publik di sini tidak sekedar dimaknai sebagai "ruang" tetapi lebih dari itu, ia adalah platform baru - sebuah "tanah baru" yang harus dikelola bersama oleh komunitas, sebuah *neue Lebensraum*:

Ruang sosial / ruang bersama

Lahan pertanian kota (*urban agriculture*)

Infrastruktur (energi untuk solar panel, atau jaringan utilitas untuk air dan limbah)

"Shared space" antara komunitas dengan institusi

Ruang fasilitas ekonomi baru

Fasilitas edukasi informal dan komunal

Ruang olahraga komunal

Fasilitas industri rumah tangga komunal

Konektor antar institusi (masjid dengan mushala lain, dengan sekolah, dengan perpustakaan, dengan gereja dan sebagainya)

WakafRuangPublik©

09-IFM-03



Badran (GoogleEarth)

KASUS WakafRuangPublik BADRAN

BADRAN: permukiman padat di barat Jogjakarta terletak di Kelurahan Bumijo, Kecamatan Jetis. Diapit oleh sungai Winongo dan Jalan Tentara Pelajar.

Intervensi yang dilakukan adalah merancang ruang hijau terbuka yang diubah menjadi multiplatform sejalan dengan ide ruang +n meter. Ruang hijau terbuka ini difungsikan sebagai lahan pertanian kota. Struktur dibuat dengan tetap memberikan kemungkinan air mengalir ke tanah dan meresap dengan lancar.

"Jalan layang" dibuat untuk menghubungkan ruang-ruang +n meter yang diwakafkan oleh penduduk sebagai ruang publik.



Badran (3D Figure&Ground dan ruang hijau terbuka yang ada saat ini)



Badran (3D Figure&Ground dengan implementasi WakafRuangPublik yang menghubungkan rumah dan ruang hijau terbuka yang dijadikan multi platform



Seberapa Realistik?: Ruang Antisipatif

Konsep ini tidak bisa dihitung sebagai "rencana anggaran biaya" namun harus dilihat sebagai sebuah alternatif dalam meregulasi ruang.

WakafRuangPublik© harus dilihat sebagai sebuah mekanisme negosiasi antara negara dan masyarakat dalam jangka panjang.

Konsep ini harus dilihat dalam konteks kampung (saat ini) sebagai penggal temporal yang akan terus bergulir dan akan terus berubah bentuk menjadi sesuatu yang baru.

WakafRuangPublik mengindikasikan bahwa konsep ruang publik kota haruslah dipikirkan dalam kerangka bukan sekedar pemanfaatan ruang (terlantar) akan tetapi justru pada sebuah pemikiran antisipatif sebelum ruang-ruang itu berubah menjadi (seakan-akan) mutlak privat.

total design city: masdar

**Foster &
Partners**

Masdar Development is a 6 million square meter project in the United Arab Emirates. Its goal: to achieve a zero carbon and zero waste community.



FOSTER + PARTNERS

total design city: masdar

car free
city



FOSTER + PARTNERS

ideal city: chinese

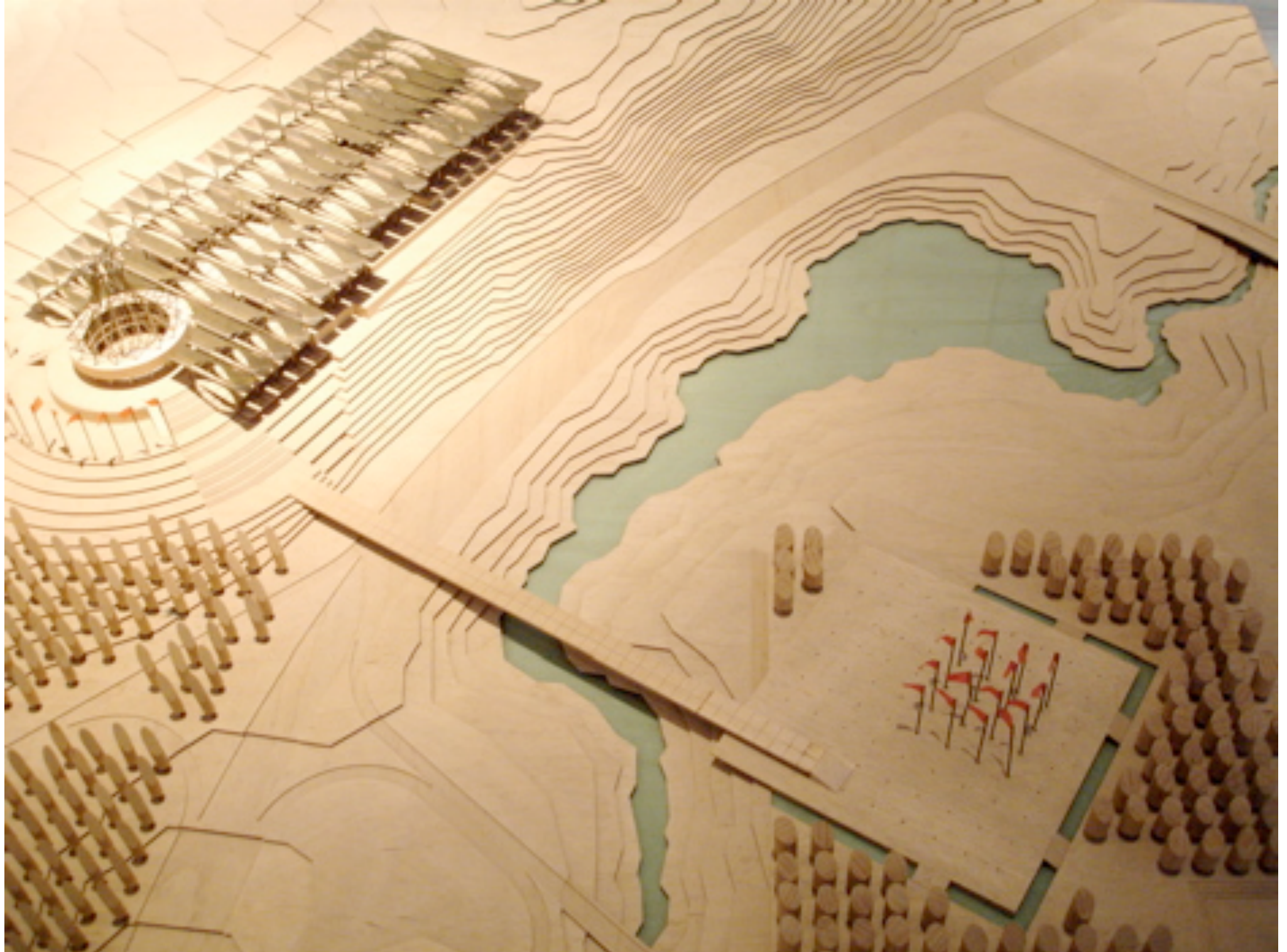
**Gerkan,
Marg &
Partners**

The plan of this city around a circular lake relates to ideas of the 'ideal city' and the history of this concept, as a subject of architectural debate, is also traced here: the city as metaphysical expression, of materialised spirituality and calculated rationality



ideal city: chinese

Gerkan,
Marg &
Partners



ecopolis: lilipad

Vincent
Cellebout

a floating ecopolis for climate refugees





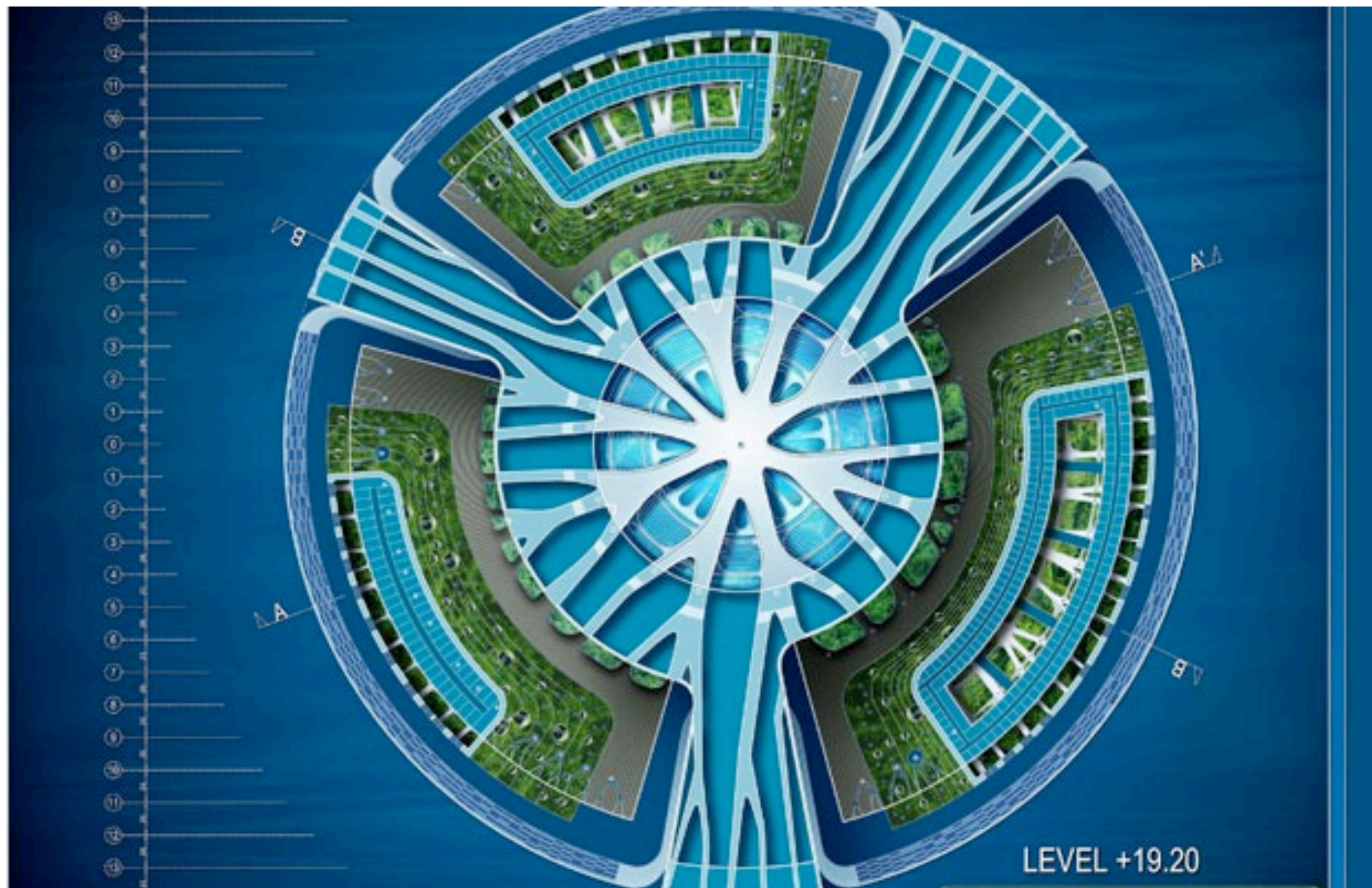
Arsitek dari Belgia, Vincent Callebaut, mengajukan terobosan baru dalam menghadapi masalah perubahan iklim dan kepadatan, solusinya dinamai: Daun Bunga Lili.



Daun Bunga Lili ini digambarkan sebagai: prototipe kota amfibi yang mampu menghidupi diri sendiri, dengan masing2 daun mampu menampung 50.000 orang.
Di tengah Daun ini ada sebuah danau yang menampung dan menjernihkan air hujan.. Kita terapung ini tidak membutuhkan jalan dan akan mengapung dan 'terhanyut' ke seluruh dunia akibat pergerakan arus laut

Desain dari Daun ini di memuat 3 marina dan 3 gunung yang dikhususkan bagi bisnis dan hiburan. Kota ini unik, karena kota ini merupakan kota amfibi, setengah kota air, setengah lagi kota darat.

Kota ini mendapat sumber daya dari matahari, angin dan arus laut, yang akan memproduksi lebih banyak energi daripada energi yang dikonsumsi, dan akan menjadi kota yang ber-'emisi nol' karena semua karbon dan limbah akan di daur ulang. Harapan yang ada adalah pada tahun 2100, akan ada 250 juta orang yang melarikan diri dari perubahan cuaca, yang disebut 'Climactic refugee', karena air laut akan menghancurkan kota2 seperti New York, Shanghai dan Bombai. Vincent percaya, bahwa produknya ini adalah solusi jangka panjang untuk menghadapi naiknya air laut, dan bukannya memperkuat garis pantai, karena solusi garis pantai ini hanyalah solusi jangka pendek





Desain dari Daun ini diinspirasi oleh daun Amazonia Victoria Regia yang memiliki tulang daun yang sangat rapat. Tujuan Vincent adalah untuk menciptakan 'hubungan harmonis antara manusia dan alam'.

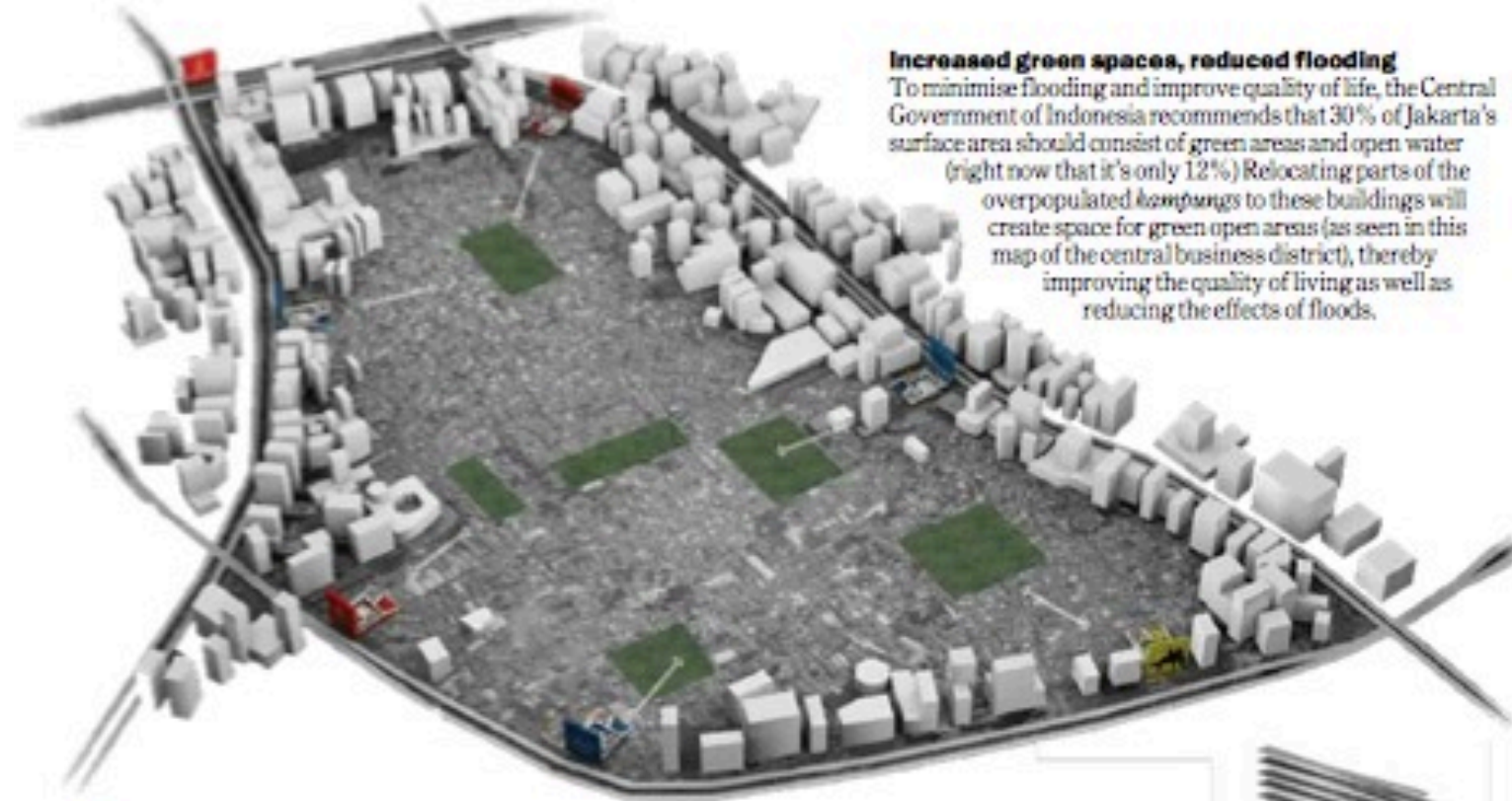
vertical kampung: nunc architekten



Waste reduction and recycling with economic benefits
 Jakarta produces 28,000 m³ of waste per day. Without any efficient garbage processing system, much of this waste is left to create unhygienic living conditions and congest waterways, leading to flooding.
 By recycling, composting and re-using, the Vertical Cleaning Kampung can reduce Jakarta's waste volume. Waste processing provides jobs and income for the poor and triggers entrepreneurship. The waste factory at the base of the building integrates platforms for traditional and informal trade.



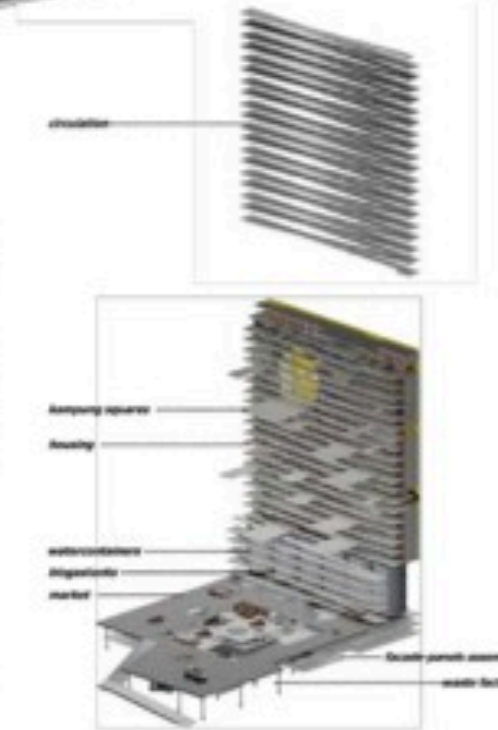
NUNC Architekten The winners of the Gatong Royong: Open City contest for 'Jakarta bersih'



Increased green spaces, reduced flooding
 To minimise flooding and improve quality of life, the Central Government of Indonesia recommends that 30% of Jakarta's surface area should consist of green areas and open water (right now that it's only 12%) Relocating parts of the overpopulated *kampung*s to these buildings will create space for green open areas (as seen in this map of the central business district), thereby improving the quality of living as well as reducing the effects of floods.



Commercial viability
 Housing for the poor can be partially paid for by the commercial billboard on the CBD side: commerce as charity.
 Furthermore, world aid companies, multinationals, foreign governments or development organizations could adopt a building and contribute to a cleaner, safer more durable future for Jakarta.



Vertical Kampung?



Nunc Architect

Pemenang Kompetisi Architectural Biennial Rotterdam 2009 (IABR)
and the Ikatan Arsitek Indonesia (Indonesian
Institute of Architects Jakarta Chapter